



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

RF

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,590	02/06/2002	Bernard Beier	600.1214	1813
23280	7590	12/01/2003	EXAMINER	
DAVIDSON, DAVIDSON & KAPPEL, LLC 485 SEVENTH AVENUE, 14TH FLOOR NEW YORK, NY 10018			TRAN, HUAN HUU	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 12/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/072,590

Applicant(s)

BEIER ET AL.

Examiner

Huan H. Tran

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6 and 12-14 is/are rejected.
- 7) ☒ Claim(s) 3,5 and 7-11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

BEST AVAILABLE COPY

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 4, 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 2861

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim 1 rejected under 35 U.S.C. 103(a) as being unpatentable over Endriz (US Patent 5793783 cited in the IDS filed on 02/06/02) in view of Marchant et al. (US Patent 6353502).

With reference to Fig. 4 for example, Endriz discloses a device for recording images on a printing form comprising:

an array of individually addressable light sources (34);

imaging optics (37-40) for generating n.times.m imaging spots on the

BEST AVAILABLE COPY

Art Unit: 2861

printing form, n being greater than one and m being greater than or equal to one and n and m being natural numbers; at least two of the $r \times s$ light sources being controllable independently of one another, r being greater than or equal to n and s being greater than or equal to m , r and s being natural numbers.

As to claim 2, Endriz teaches the limitation "the array of $r \times s$ VCSEL light sources includes a subarray of at least two of the VCSEL light source, the printing form having at least one specific imaging spot formed by combining light emitted by the subarray of the $r \times s$ VCSEL light sources". See subarrays 33, 33.

As to claim 4, it is clearly seen that the printing form has a row of n imaging spots with a distance between adjacent spots.

As to claim 6, it is clearly seen that the limitation "the imaging optics includes at least one component, and the array of VCSEL light sources includes at least one subarray, the at least one component acting on the at least one subarray and being a microoptical component". See the description of the array of light sources and of the imaging optics in the cited references.

Endriz does not teach that the array of light sources including an array of $r \times s$ VCSEL light sources,

BEST AVAILABLE COPY

Art Unit: 2861

Marchant et al. shows that the use of VCSEL array as a light source for multichannel recording, printing, optical data processing is known in the art.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a VCSEL array as taught in Marchant et al. in place of the light source in Endriz since an array of light emitting diodes would enable high density printing.

Allowable Subject Matter

5. Claims 3, 5, 7, 8, 9, 10, 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: As to claim 3, prior art of record do not appear to teach or suggest the limitation that the array of VCSEL light sources is constituted in modular form by a plurality of subarrays as shown in Fig. 4 of the present application.

As to claim 5, prior art of record do not teach or suggest the claimed limitation "the subarray has at least one first and one second VCSEL light source, the first and second VCSEL light sources being controlled so that light emitted by the first VCSEL light source is in a fixed phase relation to light emitted by the second VCSEL light source"

As to claim 7, prior art of record do not teach or suggest the claimed limitation "wherein the array of VCSEL light sources has at least one

BEST AVAILABLE COPY

Art Unit: 2861

subarray, the subarray having a VCSEL light source provided as a reference emitter for diagnosing parameters relevant to emission"

As to claim 8, prior art of record do not teach or suggest the limitation "wherein the array of VCSEL light sources has a subarray, the imaging optics for the subarray having a component with a focal position variable as a function of a distance at least one light source of the array of VCSEL light sources to the printing form"

As to claim 9, prior art does not teach or suggest the limitation "wherein the array of VCSEL light sources has at least one first light source having a control, the control, as a function of a power output from the first light source, varying an input power when the power output deviates from a setpoint value"

As to claim 10, prior art of record do not teach or suggest the limitation "wherein the at least one first light source is a reference emitter of a subarray of the array of VCSEL light sources, the input power being the input power for at least one further light source of the subarray when the power output deviates from a setpoint value"

As to claim 11, prior art does not teach or suggest the limitation "wherein at least one light source of the array of VCSEL light sources generates short pulsed radiation"

7. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Endriz in view of Marchant et al. as applied to claim 1 above, and further in view of D'Heureuse et al. (US Patent 6318264 cited in the IDS filed on 02/06/02).

Endriz in view of Marchant et al. discloses the claimed invention except for the limitation that the printing device is used in a printing-form imaging unit.

BEST AVAILABLE COPY

Art Unit: 2861

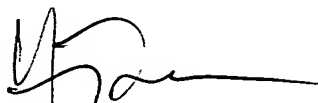
A printing-form imaging unit is known in the art such as one shown in D'Heureuse et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the imaging device taught by Endriz in view of Marchant et al. as the imaging device in the printing-form imaging unit of D'Heureuse et al. to enable high density imaging.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huan H. Tran whose telephone number is (703) 308-0749. The examiner can normally be reached on M-F with Monday off, from 7:30am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin Fuller can be reached on (703) 308-0079. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1749.



Huan H. Tran
Primary Examiner
Art Unit 2861

hht
11/25/03

BEST AVAILABLE COPY